

## General

### Guideline Title

Thymic neoplasms.

### Bibliographic Source(s)

Alberta Provincial Lung Tumour Team. Thymic neoplasms. Edmonton (Alberta): CancerControl Alberta; 2012 Dec. 13 p. (Clinical practice guideline; no. LU-008). [63 references]

### Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Alberta Provincial Thoracic Tumour Team. Thymic neoplasms. Edmonton (Alberta): Alberta Health Services, Cancer Care; 2010 Jun. 11 p. (Clinical practice guideline; no. LU-008). [50 references]

## Recommendations

### Major Recommendations

1. Whenever possible, patients should be considered for participation in ongoing clinical trials.

#### Early Stage Disease (Stages I–IIA)

2. Complete surgical resection is the standard of care for patients with an early stage thymic neoplasm.

#### Localized Disease (Stages IIB–III)

3. For patients with a resectable localized thymic neoplasm, complete surgical resection is the standard of care. Postoperative radiotherapy should be considered for patients with a resectable localized thymic neoplasm.
4. For patients with an initially unresectable localized thymic neoplasm, induction chemotherapy or chemotherapy plus radiation, followed by reassessment and consideration for surgery, is recommended. If the response is sufficient to permit surgery, surgical resection followed by adjuvant radiotherapy, if not administered pre-operatively, is recommended.
5. For patients with an unresectable localized thymic neoplasm, or for those who are medically ineligible for surgery, chemotherapy alone or in combination with radiotherapy is recommended.

#### Advanced Disease (Stages IVA–IVB)

6. For patients with an advanced thymic neoplasm, multimodality therapy should consist of induction chemotherapy followed by surgery for debulking or symptom control, where appropriate. Postoperative management should include chemotherapy and/or radiotherapy for local

control and palliation.

#### Follow-up

7. Prolonged follow-up is recommended for patients who achieve a complete or partial response with either surgery or a multimodality approach. Surveillance should include an annual chest computed tomography (CT) scan.

## Clinical Algorithm(s)

An algorithm titled "Treatment Algorithm" is provided in the original guideline document.

## Scope

### Disease/Condition(s)

Thymic neoplasms (thymoma or thymic carcinoma)

### Guideline Category

Management

Treatment

### Clinical Specialty

Internal Medicine

Oncology

Radiation Oncology

Surgery

Thoracic Surgery

### Intended Users

Physician Assistants

Physicians

### Guideline Objective(s)

To outline management decisions for patients with thymoma or thymic carcinoma

### Target Population

Adult patients over the age of 18 years diagnosed with thymoma or thymic carcinoma

### Interventions and Practices Considered

1. Consideration for participation in ongoing clinical trials
2. Complete surgical resection (for early stage or localized thymic neoplasm)
3. Postoperative radiotherapy, as indicated for stage IIB-III thymoma
4. Unresectable localized thymic neoplasm
  - Induction chemotherapy with or without radiation
  - Reassessment and consideration for surgery
  - Surgical resection followed by adjuvant radiotherapy (if not administered pre-operatively)
5. Advanced disease (Stages IVA–IVB)
  - Induction chemotherapy followed by surgery
  - Postoperative chemotherapy and/or radiotherapy
6. Follow up: annual chest computed tomography (CT) scan

## Major Outcomes Considered

- Response rate
- Duration of response
- Survival (overall, 5-year, 10-year, disease-free, progression-free)
- 5-year mediastinal recurrence rate
- Conversion rate to tumour resectability
- Incidence of secondary malignancy

## Methodology

### Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

### Description of Methods Used to Collect/Select the Evidence

Research Questions

Specific research questions to be addressed by the guideline document were formulated by the guideline lead(s) and Knowledge Management (KM) Specialist using the PICO question format (Patient or Population, Intervention, Comparisons, Outcomes).

Guideline Questions

- What are the recommended treatments for patients with a stage I or IIA thymic neoplasm?
- What are the recommended treatments for patients with a resectable stage IIB or III thymic neoplasm?
- What are the recommended treatments for patients with a stage IIB or III thymic neoplasm that is initially unresectable?
- What are the recommended treatments for patients with an advanced-stage thymic neoplasm?

Search Strategy

Medical journal articles were searched using the PubMed (March 2009 to December 2012) and EMBASE (2009 to 2012) electronic databases, and the references and bibliographies of articles identified through the search were also scanned for additional sources. The update search strategy included the following terms: treatment, thymoma [MeSH heading], practice guideline, guideline, comparative study, multicentre study, meta-analysis, clinical trial, and randomized controlled trial. Articles were excluded from review if they: had a non-English abstract or were published prior to March 2009. A review of existing practice guidelines for thymoma and thymic carcinoma was also conducted from the following organizations: Cancer Care Ontario, National Comprehensive Cancer Network, British Columbia Cancer Agency, Scottish Intercollegiate Guidelines Network, New Zealand Guidelines Group, European Society for Medical Oncology, American Society of Clinical Oncology, and the

National Institute for Health and Clinical Excellence. The guidelines were assessed for inclusion using portions of the Appraisal of Guidelines for Research and Evaluation (AGREE) tool.

## Number of Source Documents

Not stated

## Methods Used to Assess the Quality and Strength of the Evidence

Not stated

## Rating Scheme for the Strength of the Evidence

Not applicable

## Methods Used to Analyze the Evidence

Systematic Review with Evidence Tables

## Description of the Methods Used to Analyze the Evidence

Evidence was selected and reviewed by a working group comprised of members from the Alberta Provincial Lung Tumour Team and a Knowledge Management (KM) Specialist from the Guideline Utilization Resource Unit (GURU). A detailed description of the methodology followed during the guideline development process can be found in the [Guideline Utilization Resource Unit Handbook](#)  (see the "Availability of Companion Documents" field).

### Evidence Tables

Evidence tables containing the first author, year of publication, patient group/stage of disease, methodology, and main outcomes of interest are assembled using the studies identified in the literature search. Existing guidelines on the topic are assessed by the KM Specialist using portions of the Appraisal of Guidelines Research and Evaluation (AGREE) II instrument (<http://www.agreetrust.org> ) and those meeting the minimum requirements are included in the evidence document. Due to limited resources, GURU does not regularly employ the use of multiple reviewers to rank the level of evidence; rather, the methodology portion of the evidence table contains the pertinent information required for the reader to judge for himself the quality of the studies.

## Methods Used to Formulate the Recommendations

Expert Consensus

## Description of Methods Used to Formulate the Recommendations

### Formulating Recommendations

The working group members formulate the guideline recommendations based on the evidence synthesized by the Knowledge Management (KM) Specialist during the planning process, blended with expert clinical interpretation of the evidence. As detailed in the [Guideline Utilization Resource Unit Handbook](#)  (see the "Availability of Companion Documents" field), the working group members may decide to adopt the recommendations of another institution without any revisions, adapt the recommendations of another institution or institutions to better reflect local practices, or develop their own set of recommendations by adapting some, but not all, recommendations from different guidelines.

The degree to which a recommendation is based on expert opinion of the working group and/or the Provincial Tumour Team members is explicitly stated in the guideline recommendations. Similar to the American Society of Clinical Oncology (ASCO) methodology for formulating guideline

recommendations, the Guideline Utilization Resource Unit (GURU) does not use formal rating schemes for describing the strength of the recommendations, but rather describes, in conventional and explicit language, the type and quality of the research and existing guidelines that were taken into consideration when formulating the recommendations.

## Rating Scheme for the Strength of the Recommendations

Not applicable

## Cost Analysis

A formal cost analysis was not performed and published analyses were not reviewed.

## Method of Guideline Validation

Internal Peer Review

## Description of Method of Guideline Validation

This guideline was reviewed and endorsed by the Alberta Provincial Lung Tumour Team.

When the draft guideline document has been completed, revised, and reviewed by the Knowledge Management (KM) Specialist and the working group members, it will be sent to all members of the Provincial Tumour Team for review and comment. This step ensures that those intended to use the guideline have the opportunity to review the document and identify potential difficulties for implementation before the guideline is finalized.

Depending on the size of the document, and the number of people it is sent to for review, a deadline of one to two weeks will usually be given to submit any feedback. Ideally, this review will occur prior to the annual Provincial Tumour Team meeting, and a discussion of the proposed edits will take place at the meeting. The working group members will then make final revisions to the document based on the received feedback, as appropriate. Once the guideline is finalized, it will be officially endorsed by the Provincial Tumour Team Lead and the Executive Director of Provincial Tumour Programs.

## Evidence Supporting the Recommendations

### Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

## Benefits/Harms of Implementing the Guideline Recommendations

### Potential Benefits

Appropriate management and treatment of thymic neoplasms

### Potential Harms

Not stated

## Qualifying Statements

## Qualifying Statements

The recommendations contained in this guideline are a consensus of the Alberta Provincial Lung Tumour Team and are a synthesis of currently accepted approaches to management, derived from a review of relevant scientific literature. Clinicians applying these guidelines should, in consultation with the patient, use independent medical judgment in the context of individual clinical circumstances to direct care.

## Implementation of the Guideline

### Description of Implementation Strategy

- Present the guideline at the local and provincial tumour team meetings and weekly rounds.
- Post the guideline on the Alberta Health Services website.
- Send an electronic notification of the new guideline to all members of CancerControl Alberta.

### Implementation Tools

#### Clinical Algorithm

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

## Institute of Medicine (IOM) National Healthcare Quality Report Categories

### IOM Care Need

End of Life Care

Getting Better

Living with Illness

### IOM Domain

Effectiveness

## Identifying Information and Availability

### Bibliographic Source(s)

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### Adaptation

Not applicable: The guideline was not adapted from another source.

## Date Released

2010 Jun (revised 2012 Dec)

## Guideline Developer(s)

CancerControl Alberta - State/Local Government Agency [Non-U.S.]

## Source(s) of Funding

CancerControl Alberta

There was no direct industry involvement in the development or dissemination of this guideline.

## Guideline Committee

Alberta Provincial Lung Tumour Team

## Composition of Group That Authored the Guideline

Members of the Alberta Provincial Lung Tumour Team include medical oncologists, radiation oncologists, surgical oncologists, nurses, pathologists, and pharmacists.

## Financial Disclosures/Conflicts of Interest

Participation of members of the Alberta Provincial Lung Tumour Team in the development of this guideline has been voluntary and the authors have not been remunerated for their contributions. CancerControl Alberta recognizes that although industry support of research, education and other areas is necessary in order to advance patient care, such support may lead to potential conflicts of interest. Some members of the Alberta Provincial Lung Tumour Team are involved in research funded by industry or have other such potential conflicts of interest. However the developers of this guideline are satisfied it was developed in an unbiased manner.

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## Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the [Alberta Health Services Web site](#) .

## Availability of Companion Documents

The following is available:

- Guideline utilization resource unit handbook. Edmonton (Alberta): CancerControl Alberta; 2013 Jan. 5 p. Electronic copies: Available in Portable Document Format (PDF) from the [Alberta Health Services Web site](#) .

## Patient Resources

None available

## NGC Status

This NGC summary was completed by ECRI Institute on February 10, 2012. The information was verified by the guideline developer on March 30, 2012. This summary was updated by ECRI Institute on April 28, 2014. The updated information was verified by the guideline developer on June 6, 2014.

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